

SMAP and ICESat-2 Sea Ice Focus Session

Co-Hosted by

U.S. Naval Research Laboratory, Stennis Space Center, Mississippi

August 18-19, 2014

The SMAP/ICESat-2 Sea Ice Focus Session is a follow-up to the SMAP/ICESat-2 Joint Mission Tutorial held in Fairbanks, Alaska on September 18-20, 2012. This meeting opens up a unique opportunity to explore in detail the benefits outlined during the Fairbanks Tutorial for incorporating SMAP (launching 2014) and ICESat-2 (launching 2017) data products into existing sea ice research for operational and commercial applications. This Focus Session (co-hosted by the US NRL) concentrates on developing a joint sea ice data product, clarifying how each mission's data products will function, and gaining an understanding of how to better utilize mission products for applications.

Goals

- Examine the challenges and opportunities related to the use of SMAP and ICESat-2 data for sea ice
- Assess the potential efficacy of ICESat-2 and SMAP data in operational and decision-making contexts
- Explore possibilities for combining ICESat-2 and SMAP data products to leverage the functionality of the products for sea ice applications for the NRL

Expected Outcome

A clear and thorough understanding of functionality of the SMAP and ICESat-2 data products for sea ice, as well as a better understanding of opportunities and limitations in using these products operationally and to improve decision-making efforts.

18 AUGUST, MONDAY		
9:30am	Registration and Coffee	
10:00am	<i>Ruth Preller, Superintendent, Oceanography Division, Naval Research Laboratory</i> {20 min}	Focus Session Welcome
10:20am	<i>Thorsten Markus, ICESat-2 Mission Project Scientist</i> {20 min}	Tutorial Objectives, ICESat-2 Mission Overview, & ICESat-2 Sea Ice Data Products
10:40am	<i>Simon Yueh, SMAP Mission Project Scientist</i> {20 min}	SMAP Mission Overview and SMAP products
11:00am	<i>Amanda Leon, National Snow and Ice Data Center</i> {20 min}	SMAP Data Management at NSIDC DAAC
11:20am	<i>Doug Fowler, National Snow and Ice Data Center</i> {20 min}	ICESat-2 Data Management at NSIDC DAAC
11:40am	<i>Vanessa Escobar, ICESat-2 Applications Deputy Coordinator</i> {15 min}	Mission Applications and Strategy for Focus Sessions
12:00pm	LUNCH 12:00-1:30pm Poster Session During Lunch	
1:30pm	<i>Dara Entekahbi, SMAP Mission Scientist Team Lead</i> {20 min}	Synergies with ICESat-2 for Sea Ice and development of experimental products
1:50pm	<i>Ron Kwok, ICESat-2 SDT Member, Jet Propulsion Laboratory</i> {20 min}	Character of ICESat-2 retrievals over sea ice
2:10pm	<i>Sinead Farrell, ICESat-2 SDT Member, Science Team Liaison to NRL, ESSIC-UMD</i> {20 min}	Research with NRL and ICESat-2 applications
2:30pm	<i>Kyle McDonald, SMAP</i> {20 min}	Sea Ice Mapping using SMAP Instrument Measurements

2:50pm	<i>Thorsten Markus, ICESat-2 Mission Project Scientist</i> {20 min}	MABEL Data and Alaska Flights
3:10pm	Q & A Panel ICESat-2 and SMAP Sea Ice Product development (<i>Thorsten Markus, Dara Entekahbi, Simon Yueh, Ron Kwok, Sinead Farrell & NSIDC</i>)	
3:30pm	Afternoon Break	
3:40pm	<i>Carven Scott, Chief, Environmental and Scientific Services Division, NOAA/NWS Alaska Region Headquarters, Anchorage, AK</i> {20 min}	Alaska Sea Ice Operations
4:00pm	<i>LTJG David Keith and Behnjamin Zib, NOAA National Ice Center, NOAA National Ice Center</i> {20 min}	Plans for Operational use of SMAP Data at NIC
4:20pm	<i>Robert Lee, Ice Pilot to Maersk Peary, Maersk Line Limited</i> {20 min}	Navigation of oil/chemical tanker through sea ice
4:40pm	<i>Michael Kingston; Marine Trade & Energy Group, DWF LLP</i> {20 min}	Insurance Industry Contributions: operationalizing the Polar Code in the Arctic
5:00pm	Day 1 Adjourned Poster Session until 5:30pm, Social Dinner to follow Poster Session	
19 AUGUST, TUESDAY		
8:30am	Registration and Coffee	
9:00am	<i>Vanessa Escobar, ICESat-2 Applications Deputy Coordinator</i> {15 min}	Recap of Day 1, Objectives for Day 2, & ICESat-2 Early Adopter Program
9:15am	<i>Pam Posey, ICESat-2 Early Adopter, Naval Research Laboratory</i> {20 min}	Use of ICESat-2 Data as a Validation Source for the U.S. Navy's Ice Forecasting Models
9:35am	<i>Georg Heygster, SMAP Early Adopter, University of Bremen (Talk given by Simon Yueh)</i> {20 min}	Thickness of Thin Sea Ice from L-band Satellite Observations
9:55am	<i>Maciej Miernecki, SMAP Early Adopter, Institute of Oceanography, University of Hamburg</i> {20 min}	SMAP Sea Ice Thickness Retrieval Algorithm
10:15am	<i>George Leshkevich, NOAA/Great Lakes Environmental Research Laboratory</i> {20 min}	Operational applications of multiple satellite sensors to map ice type and wind vector across the Great Lakes
10:35am	Morning Break	
11:00am	Mission Panel Q&A Session <i>Thorsten Markus (ICESat-2 Project Scientist), Sinead Farrell (ICESat-2 SDT), Simon Yueh (SMAP Project Scientist), Dara Entekahbi (SMAP ST Lead), Kyle McDonald (SMAP EA)</i>	
	<ul style="list-style-type: none"> • Review Focus Session objectives & successes • Comment on EA talks and how they will support the transition of mission data from research to operations. • Identify possibilities for combining ICESat-2 & SMAP data products • Identify action forward for a Joint Sea Ice product 	
12:00pm	LUNCH 12:00-1:30pm	
1:30pm	EA Panel Discussion/Audience Discussion <i>Open discussion – Identify potential collaborations and opportunities (Pam Posey, LTJG David Keith, Robert Lee, George Leshkevich, Michael Kingston, Carven Scott)</i>	
2:00pm	<i>Vanessa Escobar</i> {10 min}	Closing Remarks & Announcements
2:10pm	SMAP/ICESat-2 Focus Session Adjourned Thank you for your attention!	